

### **REMARKS**

Claims 1-7 are pending in the above-identified application. Claims 1-7 were rejected. With this Amendment, claim 1 was amended, claims 2 and 3 were cancelled and claim 13 and 14 were added. Accordingly, claims 1, 4-7 and 13-14 are at issue in the above-identified application.

Applicants would like to thank Examiner Alejandro for his courteous and helpful discussion held with Applicants' representatives on December 2, 2004. Applicants' representatives and the Examiner discussed, in general, all claims and EP '960.

### **35 U.S.C. § 102 Anticipation Rejection of Claims and 35 U.S.C. § 103 Obviousness**

#### **Rejection of Claims**

Claims 1-7 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the EP 997960 reference. Applicants respectfully traverse this rejection. Withdrawal of this rejection is respectfully requested.

Claim 1 recites a secondary battery comprising a positive electrode, a negative electrode, and an electrolyte, wherein the positive electrode includes a positive electrode mixture layer capable of occluding and releasing light metal, wherein the negative electrode includes a negative electrode mixture layer capable of occluding and releasing light metal, and wherein the charge capacity of the negative electrode is expressed by the sum of a first capacity component by occluding and releasing light metal and a second capacity component by precipitating and dissolving light metal on said negative electrode at charging voltages below overcharging. Additionally, claim 1 also recites that the ratio (A/B) of thickness A of the positive electrode mixture layer and thickness B of the negative electrode mixture layer is 1.038 *or more* and that

each of the thickness A of the positive electrode mixture layer and the thickness B of the negative electrode mixture layer lies within the range of  $80\text{ }\mu\text{m}$  to  $250\text{ }\mu\text{m}$ , both inclusive, and wherein the negative electrode mixture layer contains a *carbonaceous material*.

While the EP 997960 reference teaches a positive electrode active material having various oxides, such as manganese dioxide, lithium manganese, composite oxide, lithium containing nickel oxide, lithium containing cobalt oxide, lithium containing nickel cobalt oxide, lithium containing iron oxide, and lithium containing cobalt oxide, these substances alone do not necessarily provide for a battery which has a *charge capacity* of the negative electrode expressed by the sum of a first capacity component by occluding and releasing light metal and a second capacity component by *precipitating and resolving* light metal on said negative electrode *at charging voltages below overcharging*. Since the *charge capacity* of a battery is *not only* determined by the type of materials used, but also by the *amount* of materials used, the EP 997960 reference does not necessarily have *identical* product compositions as the present invention. Never does the EP 997960 reference actually teach a battery have a *charge capacity* which allows for the precipitation of lithium at charging voltages below overcharging. In fact, the EP 997960 reference actually teaches a battery have a *charge capacity* which *suppresses* the precipitation of lithium on the negative electrode before an overcharging condition so as to improve the charge/discharge efficiency of the negative electrode, which is nearly the opposite of what claim 1 recites. While the Examiner points to similarities between the present invention and the EP 997960, the Examiner fails to point out any evidence that the charge capacity of the battery taught by the EP 997960 reference has a *charge capacity* which allows for the precipitation of lithium at charging voltages below overcharging. Additionally, the EP 997960 reference does not teach that the ratio (A/B) of thickness A of the positive electrode mixture

layer and thickness B of the negative electrode mixture layer is 1.038 or more, as recited by claim 1 and as supported in Example 2 through 7, as illustrated in Table 1. For example, Table 6 of the EP 997960 reference recites thicknesses for one layer of positive electrode and thicknesses for one layer of negative electrode which have a ratio A/B none of which are 1.038 or more.

In view of the foregoing, Applicant submits that the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

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